

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number  
**WO 2005/046842 A1**

(51) International Patent Classification<sup>7</sup>: **B01D 47/12,**  
53/14

(21) International Application Number:  
PCT/US2004/037257

(22) International Filing Date:  
8 November 2004 (08.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/518,076 7 November 2003 (07.11.2003) US

(71) Applicant (for all designated States except US): SEN-  
REQ, LLC [US/US]; Suite 200, 2021 Midwest Road,  
Oakbrook, Illinois 60523 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): POPE, G., Michael

[US/US]; 1312 NE 35th Street, Cape Coral, Florida 33909  
(US). GREEN, Jerry [US/US]; 7649 Brentwood, Anchor-  
age, Alaska 99502 (US).

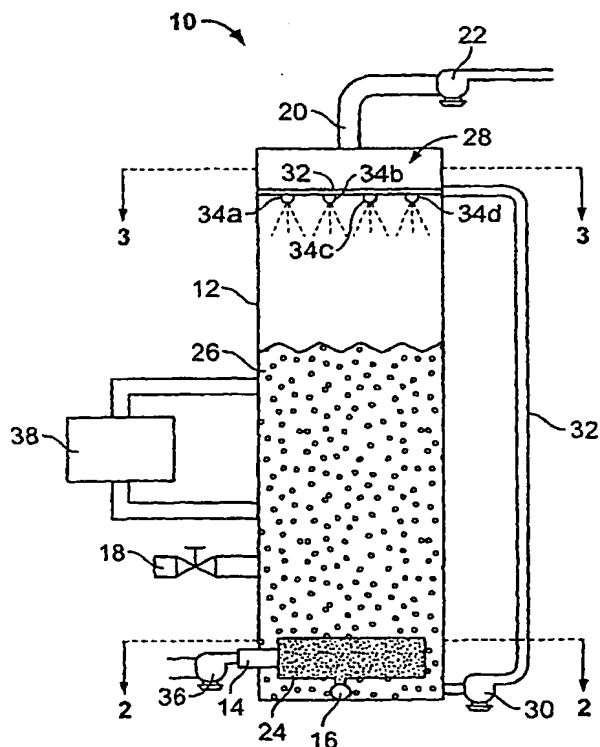
(74) Agent: SCHODDE, Gregory C.; McAndrews, Held &  
Malloy, Ltd., 500 W. Madison Street, Suite 3400, Chicago,  
Illinois 60625 (US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: A DEVICE FOR REMOVING PARTICULATE, VARIOUS ACIDS, AND OTHER CONTAMINANTS FROM INDUS-  
TRIAL EXHAUST GASES



(57) Abstract: Exhaust gases enter the tank of a  
columnar vessel (12) and are subsequently forced  
through a diffuser (24) that is at least partially im-  
mersed in a column of solution.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*